

APPLICATION FOR UNITED STATES PATENT

OF

5

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FOR

AIR GRIP

10

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TO WHOM IT MAY CONCERN:

Be it known that I, MARCUS GERRARD LINDSEY a citizen of the United  
20 States of America, and a resident of the County of Los Angeles, State of California, have  
invented certain new and useful improvements in AIR GRIP and I do hereby declare the  
following to be a full, clear and exact description of the invention, as described and claimed  
in the following specification.

This invention is described in my provisional patent application #60/280,028, filed Mar. 30, 2001 and is a continuation-in-part of my pending application 10/106,303 filed 03/26/2002.

### BACKGROUND OF THE INVENTION

5 A number of sports utilize implements that have handles. Golf clubs, tennis rackets, paddleball rackets, baseball bats, polo mallets, and table tennis paddles are just a few. Having the proper handle size for a player's racket or club is essential for maximum performance. Hands are not created equal and come in all sizes and shapes. Every person's hand is different and rackets and clubs are manufactured in standard sizes. For  
10 instance, tennis rackets come in sizes such as 3 1/2 inches, 3 5/8 inches, 3 3/4 inches, etc. In some sports, the sizes are only small, medium or large. None of these may be the optimum size for a particular player, and do not give an exact fit for everyone's comfort.

### SUMMARY OF THE INVENTION

15 Applicant's invention comprises an adjustable grip on a racket or club, which is made adjustable by having the grip expandable by the introduction of air under the grip, which is then expandable to any size desired. Air pump adjustability already exists in athletic shoes, such as the "Reebok Pump", where the wearer puts on the shoes and pumps the inner cushioning until it fits snugly to his or her foot. Ski boots are also made which can be pumped up with air to provide a snug comfortable fit.

20 OBJECTS OF THE INVENTION

Accordingly, several objects and advantages of the invention are as follows:  
It is an object of the present invention to provide an adjustable grip for any sport's racket, club, mallet, or handlebars.

Another object of the invention is to provide a simple method of sizing the grip on any sport's implement having a handle, by the introduction of air to expand the circumference of the grip to the exact size desired by the player.

These, as well as other objects of the invention, will become obvious from the 5 following description in which:

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a front view of a golf club handle of this invention;

Fig. 2 is a top view of the club shown in Fig. 1;

Fig. 3 is a top view of an unwrapped grip for to be wrapped for a right-handed person;

10 Fig. 4 is a top view of an unwrapped grip for to be wrapped for a left-handed person;

Fig. 5 is a cross-section view taken on lines 5-5 of Fig. 3;

Fig. 6 is a side view of a partially wrapped handle;

Fig. 7 is a side view of a fully wrapped handle;

Fig. 8 is a cross-section view taken on lines 8-8 of Fig. 7;

15 Fig. 9 is a perspective view of bicycle handlebars;

Fig. 10 is a top view of an unwrapped grip for handlebars;

Fig. 11 is a cross-section view taken on lines 11-11 of Fig. 10;

Fig. 12 is a view of partially wrapped handlebars using the grip of Fig. 10;

Fig. 13 is an unwrapped grip that would be placed on the handle at the time of 20 manufacture; and

Fig. 14 is a cross-section view taken on lines 14-14 of Fig. 13.

#### **DETAILED DESCRIPTION OF THE INVENTION**

Referring now to Figs. 1 and 2, there is shown the handle portion 10 of a golf club.

Handle 10 comprises an inner core, such as a central shaft 12, a top 14, and grip 18. Grip 18 is tubular in shape and slips over central shaft 12. It is attached to central shaft 12 only at the top 14 and bottom 16. Grip 18 is manufactured in a spiral, from the top 14 of handle 10 down handle 10 to the desired distance, connected at the seams, such as 26 & 28.

5 Grip 18 can also be a separate layer of material placed over central shaft 12, attached to central shaft 12 at only the top 14 and bottom 16, and can have or not have a spiral shape.

In the top of grip 18 is an air valve 20 for the introduction of air, which then passes between central shaft 12 and grip 18 via air duct 24. Air valve 20 is a finger pump in which air is pumped in by repeated pressing of finger valve 20. An air release valve 22 releases

10 the air, when pressed down, through air duct 24. Grip 18 is fastened to central shaft 12 in an air-tight manner at the top 14 and bottom 16 so that the air cannot escape. Finger pump 20 is a common item, such as the one used on "Reebok Pump" basketball shoes.

As air is introduced, the space between central shaft 12 and grip 18 expands and may be stopped at any point desired by the player, so that the handle size may be adjusted

15 to whatever circumference is desired. An additional benefit of the air grip of this invention is that it provides a cushioned surface, rather than the normal hard surface of standard handles, which is easier on the hands and arms, results in less vibration, and may well help to reduce hand and arm injuries.

Handle 10 is usually made of a durable rubber material and grip 18 can be made of 20 leather, vinyl, a layer of thin rubber material or any other air-tight, expandable grip material that can be placed over central shaft 12. The grip may be made spiral wrapped, and sealed so as to be air-tight, or may be a thin, elongated, circular, solid piece of rubber, leather, vinyl or other material, which is placed over the handle and sealed at the top and

bottom only, leaving room between the handle and grip for the introduction of air.

Figs. 3, 4 and 5 show grips which are adapted to wrapped around the handle of any sports racket or paddle, such as for tennis, racquetball, squash, table tennis, or any other game using a racket or paddle. Fig. 3 shows a grip 30 to be wrapped for a right-handed 5 player and Fig. 4 shows a grip 32 for a left handed player. Fig. 5 shows the cross-section of either grip.

Grips 30 and 32 are essentially the same but simply turned over to accommodate the spiral in the desired direction. Grips 30 and 32 comprise a length of grip material, such as those mentioned above for the grip of Fig. 1, having a flat portion 34, 36 and an annular 10 portion 38, 40. Inside of annular portions 38 and 40 is an inflatable bladder, air containing tubular chamber 42, as shown in Fig. 5. Either grip 30, 32 is spiral wrapped around the handle of a sports racket and sealed at each end, such as by tape 44, 46. A finger pump 48, 50 having a pump button 52, 54 is connected at upper end of annular portion 38, 40 to introduce air into inflatable bladder 42. An air release valve 49, 51 is also present to 15 release air if desired.

Figs. 6, 7 and 8 show the spiral wrapping of grip 32 around a handle 56. Flat portion 36 is overlapped by annular portion 40 as grip 32 is spiral wrapped around handle 56. Inflatable bladder 42 may then be filled with air, by using finger pump 50, to the desired circumference. Grip 32 is sealed at the top end of the wrapping by tape 46. Grip 20 32 is sealed at the bottom end where the wrapping begins by either tape or adhesive.

Fig. 9 shows the handlebars 60 of a cycle, such as a bicycle, being wrapped with an air containing grip of this invention. One handlebar 62 is completely wrapped by grip 64 while the other handlebar is being wrapped by grip 68 coming off roll 70. The ends of

each grip 64, 68 are fed into the hollow handlebar ends and sealed by handlebar end caps 72 and 74. Each grip's wrapping is started at the center of handlebars 62, 66, and has a finger pump 76, 78, which is at a convenient location for manipulation by the rider, even while he is riding. The starting end of grips 64, 68 is sealed by tape or adhesive, or any 5 other convenient means. Grips 64 and 68 are essentially the same but simply turned over to accommodate the left and right handlebar.

Figs. 10, 11 and 12 show another embodiment of the invention, which is able to be wrapped as either a left or right handed wrap. Grip 80 comprises one flat portion 84 with an adjacent annular portion 86. Annular portion 86 contains an inflatable bladder, air 10 containing portion 88. A finger pump 90 has a finger pump button 92. Fig. 12 shows the grip 80 being wrapped around a cycle handlebar 96. Grip 80 is sealed to handlebar 96 by tape or adhesive 94.

Figs. 13 and 14 show a grip 100 which is attached to a racket handle at the time of manufacture of the racket. Grip 100 has two outer flat portions 102, 104 and a central, 15 tubular air containing portion 106. In this case the grip does not have to be overlapped as it is attached, since it can be manufactured with adjacent air containing cells. A finger pump 108 with button 110 is used to introduce the air.

If the player finds that too much air has been introduced into the air grip, he or she can simply let air out by pressing the air release valve 112 and the circumference of the 20 grip will deflate to the comfort of the player's grasp.

Having thus described the invention, I claim: